

# BAD RIVER BAND OF LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS

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CHIEF BLACKBIRD CENTER

July 26, 2013

P.O. Box 39 • Odanah, Wisconsin 54861

Bradley A. Johnson  
Stormwater Specialist  
Wisconsin Department of Natural Resources  
Wausau Service Center  
5301 Rib Mountain Rd.  
Wausau, WI 54401

Re: Gogebic Taconite, LLC July 9, 2013 application for a stormwater permit to modify access roads.

Dear Mr. Johnson:

As a sovereign nation with regulatory authority over downstream waters, on-Reservation air quality, and pursuant to treaties we signed with the United States, we submit our comments related to Gogebic Taconite's (henceforth, "GTAC" or "applicant") application regarding stormwater management.

Please note that these comments have been submitted on behalf of the Environmental Program of the Bad River Band of Lake Superior Chippewa and do not represent a form of government-to-government consultation. In addition, the submission of the comments below are not intended to confer or imply consent for the review of this project as independent of mineral exploration or bulk sampling activities. Rather, these comments are intended to assist with technical review and resource protection in the effected area.

For each item, we will offer background information (or "context") and a subsequent comment. Contact information is provided at the conclusion should items exist for which you require further explanation or discussion.

**Context (1):** The activities proposed by the applicant (e.g. grading, berming, stockpiling) are planned in areas directly adjacent to waterways and wetlands that contribute to an exceptional resource water and trout stream (i.e. Javorsky Creek). As an exceptional resource water, Javorsky Creek falls under the State's anti-degradation policy to maintain and protect existing uses and high quality waters (s. NR207), and the applicant must determine whether any part of its construction or post-construction site stormwater will discharge to an exceptional resource water (4.2.1 of WPDES Permit No. WI-S067831-4). In addition, under ss. NR 103.04, the proximity and hydrologic connectivity to a cold

water community and exceptional resource water makes the wetlands in the project area “areas of special natural interest.”

The applicant has applied for coverage under Wisconsin Administrative Code Chapter 216, which provides for the issuance of general (s. NR 216.23, WPDES Permit No. WI-S067831-4) or individual permits (s. NR 216.51(5)).

**Comment (1.1):** The Wisconsin Department of Natural Resources (henceforth, “the Department”) should require an individual permit from the applicant that includes site-specific measures and a demonstration that those practices will prevent the degradation of water resources in and downstream of the project area.

**Comment (1.2):** The Department should ensure that the baseline physical, chemical, and biological conditions of non-degradable waters in and downstream of the project area are adequately documented. In addition, the Department should require monitoring by the applicant to ensure that both parties can demonstrate compliance with the anti-degradation policy (s. NR 216.48(3)).

**Context (2):** On page 45 of the stormwater application, the applicant has elected to use the Wisconsin Wetland Inventory geospatial data to depict the location of wetlands in the project area. However, point data available from that dataset which depicts wetlands under 2 acres is not presented. In addition, photographs of sites 16+23 and 16+60 seem to depict upland or unsaturated conditions lacking wetland vegetation. However, these photographs conflict with Bad River Natural Resource Department’s documentation of the location (see Attachment A), and even the coarse resolution of the Wisconsin Wetland Inventory layer.

**Comment (2.1):** The applicant must submit a formal wetland delineation for the project area (using methods in accordance with the Army Corps of Engineers’ Wetland Delineation Manual (1987) and regulatory supplements); to include wetlands (and other surface waters) up- and downslope of the proposed activity which may be directly or indirectly impacted by the proposed activity. That delineation information should be included in all maps depicting project activities (e.g. ditching, culvert placement) in the vicinity of water and wetland resources.

**Context (3):** Beginning on page 9, the applicant includes a SEDCAD 4 modeling output performed by Alliance Consulting, Inc of Beaver, WV. Modeling’s applicability is completely dependent upon the model input parameters and assumptions inherent or added to the process. Alliance Consulting elected to model a 10 year-24 hour design storm accumulating precipitation as an NRCS Type I event and resulting in a depth of 3.8 inches. It is also presumed that Alliance Consulting delineated the drainages presented on page 45, which generated the input for contributing areas.

None of these parameters are appropriate, for the following reasons: First, standard practices of modeling storm events for culvert sizing on woodland roads in the region (e.g. in the Chequamegon Nicolet National Forest) assess 100-500 year storm events, with 100 year storm events being the minimum severity considered. Storm events of this scale are essential considerations as Mellen, WI has been known to receive as much as 11.72 inches in a single event (i.e. June 1946); which resulted in \$3 million dollars in damages (equivalent to \$35.8 million in 2013) in the Bad River and White River basins.

Second, NRCS Type I storms presume a more gradual accumulation typical of Pacific maritime climates (see Attachment B). Upon reviewing the attached map, it is clear that a Type II storm event—which presumes a more concentrated accumulation profile—is the only appropriate input for the region.

Thirdly, a preliminary review of the drainages presented seem to underestimate the contributing acreage. Several boundaries seem to follow straight lines and defy land contours (e.g. western edge of drainage area 42+80). Another, when compared to aerial photographs, has a northward flowing stream channel crossing its southern, upland boundary (i.e. drainage area 16+60).

By underestimating the contributing surface area, modeling the incorrect storm type, and being limited to a 20-year storm, the applicant risks grossly underestimating the quantity of storm water which may need to be managed and not providing effective risk mitigation measures for downstream waters.

**Comment (3.1):** At minimum, a 100-year storm event should be modeled, as is typical for woodland roads in the region.

**Comment (3.2):** The model should utilize a NRCS Type-II storm event in order to accurately portray rainfall accumulation rates in the temperate Midwest.

**Comment (3.3):** A qualified hydrologist should properly delineate the drainages informing modeling and culvert placement.

**Context (4):** The erosion of materials from the railroad grade is already resulting in blow-outs and the failure of sediment controls. The grading of the road, berming of material, and creation of ditches would be expected to increase the availability of fine materials. It is unclear how existing sediment management techniques will be sufficient to handle this potential for increased loading. In addition, the stockpiling of road material uphill of the unmapped, perennial stream (near station 51+50) seems to place a tributary of Javorsky Creek at unnecessary risk of sediment pollution.

**Comment (4.1):** The applicant should demonstrate that the controls, which are currently ineffective at reducing erosion and preventing sediment transport off-site, will be sufficient for managing runoff from stockpiles, berms, and the more intensive land-

disturbing activities proposed, especially in the vicinity of protective areas (s. NR 151.125)

**Comment (4.2):** The applicant should demonstrate that the footprint on the “forestry landing” near station 51+50 is sufficient to store the quantity of material expected to be removed with a sufficient setback (i.e. s. NR 151.125(a)-(f)) and controls to prevent the degradation of downslope and downstream water and wetland resources.

**Context (5):** The applicant shall develop a site-specific Storm Water Pollution Prevention Plan (SWPPP) that shall meet the requirements described in Wisconsin Administrative Code s. NR 216.27. While the applicant has identified some details of land disturbing activities and the erosion and sediment control practices that will be implemented, these details are inadequate to ensure that erosion will be minimized at the site, sediments will be prevented from entering surface waters in the project vicinity, and adverse impacts to surface waters will be minimized.

**Comment (5.1):** The Department should require the applicant to complete an adequate SWPPP. This plan should clearly describe the nature of the land disturbing activity, including timing and sequencing of these activities. As the extent of ditching that will occur with the proposed project is unclear in the application submitted, the Department should request additional cross-sections of the road improvement project beyond the areas where culvert installations are proposed that illustrate the current and proposed road grade and ditches. In addition, as previously stated, the Department should request that delineated boundaries of surface waters are overlaid onto the plan views to more accurately demonstrate the surface water impacts.

**Comment (5.2):** Furthermore, the SWPPP should clearly describe controls, both structural and non-structural, that will be implemented to minimize erosion along with practices to effectively capture sediments to prevent deposition into adjacent waters. The control practices selected should be based on the site-specific conditions, ensuring proper selection and application of the practices as described in relevant technical standards. The plan should provide adequate details on these practices, including, but not limited to, the location of structural and non-structural controls, area and location of wetland acreage on the site and locations where storm water is discharged to a surface water or wetland within one-quarter mile downstream of the site, and the timeline for implementation and inspection of the controls (3.1 and 3.2 of WPDES Permit No. WI-S067831-4).

**Comment (5.3):** Additionally, the SWPPP should provide details of site stabilization plans, such as the timeline for implementation stabilization practices after earth-disturbing activities cease, the seed mix to be used for reseeded, an inspection schedule to assess the success of stabilization practices, and steps that will be taken if stabilization practices are unsuccessful.

**Context (6):** The road improvement project should incorporate design criteria and practices that not only reduce erosion and sediment, but maintain subsurface hydrologic connectivity and restore drainage density to more natural conditions. If properly implemented, these practices can reduce long-term maintenance costs and lengthen maintenance cycles.

**Comment (6.1):** The Department should require the applicant to incorporate additional practices to ensure adequate and appropriate road surface and subsurface drainage, such as identifying the final road shape and installing culverts, French drains, French mattresses, or equivalent practices in areas delineated as wetlands.

**Comment (6.4):** The road at station 47+60 crosses a perennial stream with an existing perched culvert. The Department should require the applicant to replace this culvert with one that is properly embedded and ensure alignment with the stream channel.

**Comment (6.2):** The installation of the subsurface drainage practices in surface waters should occur during low-water conditions to the extent practicable.

**Comment (6.3):** Culverts should be designed and installed to reflect natural hydrology, minimize erosion and sedimentation, and protect aquatic life and other applicable designated uses. Within perennial or intermittent streams or watercourses, the culvert bottom should be set at a minimum of six inches or 10% of the culvert diameter, whichever is greater, below the stream bed elevation, and the culvert should be properly aligned to the streambed to the extent practicable. Within wetlands, if a culvert is chosen as the appropriate road crossing structure, the culvert bottom should be set at a minimum of six inches or 25% of the culvert diameter, whichever is greater, below the soil surface.

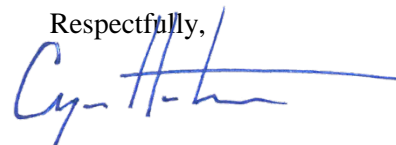
**Comment (6.4):** A culvert or other appropriate drainage structure should be installed at station 36+70 as the landform and current runoff patterns seem to indicate significant flow in the vicinity of this area.

**Context (7):** Finally, as stated in our comments on May 30, 2013 regarding GTAC's application for an exploration license, "while the applicant proposes a number of methods for improving access, it is unclear that the footprint of such improvements will be able to avoid inadvertent fill [or degradation] of wetlands immediately adjacent to the impaired roads."

**Comment (7.1):** The applicant should demonstrate (with vehicle sizing and maintenance practice footprint information) that wetlands will not be unintentionally filled during access improvement.

We thank you for your time and consideration.

Respectfully,



**Cyrus Hester**

Environmental Specialist  
(O) 715-682-7123 x 1551

Cc:

Larry Lynch, WDNR  
William Sande, ACOE  
Krista McKim, EPA



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Attachment A. Wetland features south of access road 3 and road conditions on 12Jul2013 in the immediate vicinity of location 16+60.



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Attachment B. Rainfall distribution and geographic boundaries for NRCS storm type determination.

